

Serial No. 09/406,729
Amendment dated September 21, 2006
Reply to Office Action of June 21, 2006

Docket No. CIT/K-0090

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method comprising:
 - deciding a bearer service profile type according to a bearer service combination type of bearer service to provide said bearer service;
 - selecting a transport format within a transport format combination set according to the decided bearer service profile type; and
 - transmitting a transport format indicator to indicate the selected transport format; and
 - transmitting a transport format combination indicator including a plurality of transport format indicators to a dedicated physical control channel.

2. (Previously Presented) The method as set forth in claim 1, wherein said bearer service profile type includes a service type and radio environment information.

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3. (Original) The method as set forth in claim 2, wherein said service type includes said bearer service combination type and a bearer service class type.

4. (Original) The method as set forth in claim 3, wherein said bearer service combination type includes a bearer service category defined by a combination of speech, circuit data and packet data services, said bearer service category including any one of only said speech service, only said circuit data service, only said packet data service, a combination of simultaneous speech and packet data services, a combination of simultaneous speech and circuit data services, a combination of simultaneous packet data and circuit data services and a combination of simultaneous speech, packet data and circuit data services.

5. (Original) The method as set forth in claim 3, wherein said bearer service class type includes any one of first to fourth classes, said first class having connection oriented and delay constrained characteristics for low delay data, said second class having variable bit rate, connection oriented and delay constrained characteristics for low delay data at a variable bit rate, said third class having connection oriented and delay constrained characteristics for long constrained delay data, said forth class having connectless and delay unconstrained characteristics for unconstrained delay data.

6. (Previously Presented) The method as set forth in claim 2, wherein:

said radio environment information includes one of an indoor environment model, an outdoor to indoor and pedestrian environment model and a vehicular environment model; and

said radio environment information is based on periodic, on-demand and threshold information.

7. (Previously Presented) The method as set forth in claim 1, wherein setting said transport format includes attributes of a dynamic part and semi-static part of transport formats indicated by said transport format indicator.

8. (Previously Presented) The method as set forth in claim 7, wherein said attributes of said dynamic part include at least one of a transport block size and a transport block set size.

9. (Previously Presented) The method as set forth in claim 7, wherein said attributes of said semi-static part include at least one of a transport time interval, a type of channel coding, outer coding, outer interleaving, inner coding, inner interleaving and rate matching.

10. (Currently Amended) A method comprising:

deciding a bearer service combination type of a bearer service for a mobile station and a base station;

measuring a radio environment between said mobile station and said base station;

deciding a bearer service profile type according to said bearer service combination type and said radio environment;

assigning, at a radio resource control (RRC) layer, a transport format combination set to a medium access control (MAC) layer according to said bearer service profile type;

selecting at the MAC layer a transport format within said assigned transport format combination set and transmitting, at the MAC layer to a physical (PHY) layer, a transport format indicator to indicate said selected transport format; and

configuring said transport format including attributes of a dynamic part and a semi-static part according to said transport format indicator, transmitting at the PHY layer a transport format combination indicator to a dedicated physical control channel; and

appending, at the PHY layer, the transport format combination indicatory to a dedicated physical control channel (DPCCH).

11. (Previously Presented) The method as set forth in claim 10, wherein:
measuring includes determining whether said radio environment includes one of
an indoor environment model, an outdoor to indoor and pedestrian environment model and a
vehicular environment model; and
said radio environment information is based on periodic, on-demand and
threshold information.

12. (Previously Presented) The method as set forth in claim 10, wherein said
attributes of said dynamic part include a transport block size and a transport block set size.

13. (Previously Presented) The method as set forth in claim 10, wherein said attributes of
said semi-static part include at least one of a transport time interval, a type of channel coding, outer
coding, outer interleaving, inner coding, inner interleaving and rate matching.

14-33. (Canceled).

34. (Previously Presented) A method comprising:
receiving at least one type of wireless service;
determining a radio environment measurement; and

determining a transport format combination set according to said at least one type of wireless service and said radio environment measurement.

35. (Previously Presented) The method of claim 34, wherein the at least one type of wireless service is received from an upper layer other than a radio resource control layer.

36. (Previously Presented) The method of claim 34, wherein said determining a radio environment measurement is implemented in a radio resource control layer.

37. (Previously Presented) The method of claim 34, wherein said determining the transport format combination set is implemented in a radio resource control layer.

38. (Previously Presented) The method of claim 34, wherein said at least one type of wireless service indicates a bearer service combination type.

39. (Previously Presented) The method of claim 34, wherein said at least one type of wireless service comprises speech service.

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40. (Previously Presented) The method of claim 34, wherein said at least one type of wireless service comprises circuit data service.

41. (Previously Presented) The method of claim 34, wherein said at least one type of wireless service comprises packet data service.

42. (Previously Presented) The method of claim 34, wherein said at least one type of wireless service comprises a combination of simultaneous speech service and packet data service.

43. (Previously Presented) The method of claim 34, wherein said at least one type of wireless service comprises a combination of simultaneous packet data service and circuit data service.

44. (Previously Presented) The method of claim 34, wherein said at least one type of wireless service comprises a combination of speech service and circuit data service.

45. (Previously Presented) The method of claim 34, wherein said at least one type of wireless service comprises a combination of simultaneous speech service, packet data service, and circuit data service.

46. (Previously Presented) The method of claim 34, wherein said determining the radio environment measurement comprises determining one of:

- an indoor environment model;
- a pedestrian environment model; and
- a vehicular environment model.

47. (Previously Presented) The method of claim 34, wherein said determining the transport format combination set includes deciding a radio bearer service profile type.

48. (Canceled).

49. (Previously Presented) The method of claim 34, further comprising transferring the transport format combination set to a medium access control layer.

50. (Previously Presented) The method of claim 34, further comprising transferring the transport format combination set to a physical layer.

51. (Previously Presented) The method of claim 34, further comprising selecting at least one transport format within the transport format combination set.

52. (Previously Presented) The method of claim 51, wherein said at least one transport format is within a transport format set.

53. (Previously Presented) The method of claim 51, wherein said selecting at least one transport format is implemented in a medium access control layer.

54. (Previously Presented) The method of claim 34, further comprising transferring a transport format indicator to a physical layer.

55. (Previously Presented) The method of claim 54, wherein the physical layer transmits a transport format combination indicator to a dedicated physical control channel based on the transport format indicator.

56. (Previously Presented) The method of claim 55, wherein the dedicated physical control channel is a channel between two wireless devices.

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57. (Previously Presented) The method of claim 56, wherein the two wireless devices comprise at least one of a mobile station and a base station.

58. (Previously Presented) An apparatus comprising:
a receiving unit configured to receive at least one type of wireless service;
a first determining unit configured to determine a radio environment measurement; and
a second determining unit configured to determine a transport format combination set according to said at least one type of wireless service and said radio environment measurement.

59. (Previously Presented) The apparatus of claim 58, wherein the apparatus is a base station.

60. (Previously Presented) The apparatus of claim 58, wherein the apparatus is a mobile station.

61-64. (Canceled)